Remarks

Claims 1-10 and 12-81 were pending in the present application. Claim 11 is canceled. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 2 and 17-27 are objected to for various informalities. Applicant submits that Claims 2, 17, 18, and 19 have been amended to address the objections in the Office Action. Applicant therefore requests that the objection to Claims 2 and 17-27 be withdrawn.

Claim 26 has been rejected under 35 USC § 112. Claim 26 has been amended to address the rejection. The above claim amendment is believed to overcome this rejection.

With respect to the rejections of Claims 26 and 27 under 35 U.S.C. § 101, Applicant submits that the rejection is improper as the previously pending claims do recite sufficient structure and steps to satisfy the requirements of 35 U.S.C. § 101. Specifically, Claim 26 recites an apparatus that may be used to perform the method steps recited. For example, Claim 26 recites in part an "apparatus operable to parse a non-procedural image annotation template."

As stated in In Re Bilski, "[A]n applicant may show that his claim is tied to a particular machine, or by showing that his claim transforms an article into a different state or thing." For example, the Board of Patent Appeals and Interferences stated in Ex parte James Hayworth decided July 30, 2009, that the rejected claim failed to satisfy 35 U.S.C. § 101 because the claim was not "tied to a particular machine or apparatus." (emphasis added). In this case, Claim 26 is clearly tied to a particular apparatus. For example, Claim 26 recites in part an "apparatus operable to parse a non-procedural image annotation template." Claim 26 also recites, among other things, an "apparatus operable to initialize a parser of the non-procedural image annotation template, the parser being compliant with the Simple API for XML standard." Applicant submits that the recitations of claim 26 are tied to an apparatus and also claim various apparatus for implementing the method. Therefore, Claim 26 is tied to a particular machine as required by

Bilski and the BPAI decision Ex Parte Hayworth. Applicant therefore requests that the rejection of Claims 26 and 27 be withdrawn.

Turning to the remaining rejections, Claim 62 is rejected under 35 USC § 102(e) as being anticipated by Goede et al. (US 2006/0061595). Claims 75 and 78-81 are rejected under 35 USC § 102(e) as being anticipated by Yamamoto (US 2005/0198202). Claim 64 is rejected under 35 USC § 103(a) as being unpatentable over Jain (US 2002/0073091) in view of Goede. Claims 1-10, 12-25, 51-55, 55-61, 65-69 and 77 are rejected under 35 USC § 103(a) as being unpatentable over Jain in view of Goede and further in view of Yamamoto. Claims 26, 27, 56, and 70-74 are rejected under 35 USC § 103(a) as being unpatentable over Jain in view of Yamamoto. Claims 28-35, 37, 38, 40-45, 48-50, 57, 58, and 76 are rejected under 35 USC § 103(a) as being unpatentable over Yamamoto in view of Goede. Claims 36 and 39 are rejected under 35 USC § 103(a) as being unpatentable over Yamamoto in view of Goede and further in view of Jain. Claims 46 and 47 are rejected under 35 USC § 103(a) as being unpatentable over Yamamoto in view of Jain. Claim 63 is rejected under 35 USC § 103(a) as being unpatentable over Goede in view of Yamamoto.

Regarding the rejection of Claim 62, Claim 62 recites a computer-accessible medium that includes "an encapsulation of medical image annotation native computer instructions; and a viewer that is operable to access the encapsulated medical image annotation computer instructions, the instructions programmed to annotate a medical image with embedded text." Goede does not describe an encapsulation of medical image annotation native computer instructions as recited in Claim 62. To support this rejection, the Office Action, on Page 5, cites to Goede (abstract, lines 1-6) which states:

> A method and system for visually annotating an image. Annotations and notes to images, such as digital medical and healthcare images, may be stored in a structured vector representation alongside image information in a single, non-volatile and portable file or in a separate file from the image.

As described above, Goede does not describe a computer-accessible medium that includes "an encapsulation of medical image annotation native computer instructions" as asserted in the Office Action. In contrast, Goede merely states that annotations may be stored alongside image information. Moreover, Goede describes that "[a]ll the problems associated with the use of raster based images can either be eliminated or reduced substantially by not flattening the annotations to the image by the use of storing the annotations as vector based graphics." Goede clearly describes a method for storing the annotations with an image. For example, Goede describes that by "storing metadata and vector-based annotations as text inside the image file, this information can more easily "travel" with the image information." Therefore Goede does not describe a computer-accessible medium that includes "an encapsulation of medical image annotation native computer instructions," Goede also does not describe a viewer that is operable to access the encapsulated medical image annotation computer instructions. For at least the reasons stated above. Claim 62 is submitted to be patentable over Goede.

Regarding the rejection of Claim 75, Claim 75 recites an apparatus that includes "a processor; and an encapsulation of image annotation computer instructions, the computer instructions being native to the processor, the computer instructions being generated by a processor on another apparatus."

Yamamoto does not describe an encapsulation of medical image annotation native computer instructions as recited in Claim 75. To support this rejection, the Office Action, on Page 6, cites to Yamamoto (paragraph 0022) which states:

> [0022] The use of conventional software for an annotation function allows one computer, which uses the same type of software for the annotation function that has been used by another computer for attaching an annotation to an electronic document, to display the electronic document with the attached annotation on the display screen and allows a user of the one computer to view the electronic document with the attached annotation. Therefore, the use of conventional software for an annotation function provides communication using annotations via a network only between a plurality of users of a plurality computers common

in type of software for the annotation function that has been installed in the computers.

Regarding the conventional software for annotation functions, Yamamoto describes a technique that enables a server to provide a plurality of client computers with annotation functions, thereby to allow the users of the client computers to communicate with each other using annotations. Specifically, Yamamoto describes that the annotation functions are transmitted "in a format viewable in the Web browser (e.g., a Hyper-Text Mark-up Language (HTML) file); b) annotation information representing annotations in a format viewable in the Web browser (e.g., an HTML file); and c) a script for allocating the annotations to the file (document) (e.g., a JavaScript). (Yamamoto, paragraph 70. Yamamoto clearly describes that to enable the requesting computer 50 to utilize the annotation functions the server transmits the annotation functions in an HTML format. Applicant submits that the HTML formal is NOT native to the processor, e.g. computer 50. Therefore, Claim 75 is submitted to be patentable over Yamamoto. Because Yamamoto describes annotation functions in an HTML format, Claims 78-81 are also considered to be patentable over Yamamoto.

Regarding the rejection of Claim 64, Applicant submits that the combination of Jain and Goede do not render Claim 64 obvious.

As described above with respect to Claim 62, Goede does not describe a computer-accessible medium that "invokes executable instructions that are native to the processor, the executable instructions being contained in a medical image annotation executable."

Goede merely states that annotations may be stored alongside image information. Moreover, Goede describes that "[a]ll the problems associated with the use of raster based images can either be eliminated or reduced substantially by not flattening the annotations to the image by the use of storing the annotations as vector based graphics." Goede clearly describes a method for storing the annotations with an image. For example, Goede describes that by

"storing metadata and vector-based annotations as text inside the image file, this information can more easily "travel" with the image information." Therefore Goede does not describe a computer-accessible medium that includes "an encapsulation of medical image annotation native computer instructions," Goede also does not describe a viewer that is operable to access the encapsulated medical image annotation computer instructions.

Moreover, Jain does not make up for this deficiency. In contrast, Jain describes "translating an XML document to an object in an object-oriented language so that content of the XML document can be programmatically accessed." The code described by Jain, as admitted in the Office Action, "converts and XML DTD into an XML document." Moreover, Applicant submits that neither the Jain reference is not concerned with, nor does the Jain reference describe "generating an annotated medical image that is annotated with the text from the image annotation object" as asserted in the Office Action.

To support this rejection the Office Action asserts that Jain describes "a Document Type Definition file (DTD) associated with an XML document defines how mark up tags within the document should be interpreted by the application presenting the document." As best understood by the Applicant, the Office Action asserts that the DTD file described by Jain is the same as the non-procedural image annotation template recited in the pending claims. Applicant disagrees.

As described by Jain, "[a] Document Type Definition file ("DTD") associated with an XML document defines how the mark up tags within the document should be interpreted by the application presenting the document." (Paragraph 3) As known in the art, a "mark up tag" is a fundamental characteristic of HTML. More specifically, a mark up tag is a command placed between wickets or angle brackets in the mark up language. Mark up tags are not revealed by a WEB browser but are invisible. As such, the HTML mark up tags described by Jain are NOT annotations, nor is there any reasonable rationale for using the known mark up tags as annotations on an image since markup tags are not shown on the WEB page. Therefore, Applicant submits that Claim 64 is allowable over the combination of Jain and Goede

The rejection of Claims 1-10, 12-25, 51-55, 55-61, 65-69 and 77 as being unpatentable over Jain in view of Goede and further in view of Yamamoto is respectfully traversed.

As admitted in the Office Action, Jain does not describe or suggest "a translator that is operable to receive a non-procedural image annotation template to enable text to be embedded on a medical image." Nor does Jain describe or suggest " a compiler operably coupled to the translator, the compiler being operable to receive the image annotation source code and to compile the source code into an image annotation executable adapted to be installed on a medical imaging system to enable the medical image including the embedded text to be viewed." Specifically, as admitted in the Office Action on Page 14, neither Jain nor Goede teach "a translator being operable to translate the non-procedural image annotation template to image annotation source code."

Applicant submits that Yamamoto does not make up for these deficiencies. In contrast, Yamamoto, Specifically, Yamamoto describes that the annotation functions are transmitted "in a format viewable in the Web browser (e.g., a Hyper-Text Mark-up Language (HTML) file); b) annotation information representing annotations in a format viewable in the Web browser (e.g., an HTML file); and c) a script for allocating the annotations to the file (document) (e.g., a JavaScript). (Yamamoto, paragraph 70. Yamamoto clearly describes that to enable the requesting computer 50 to utilize the annotation functions the server transmits the annotation functions in an HTML format. Applicant submits that the HTML formal is NOT native to the processor, e.g. computer 50. Therefore, Claim 1 is submitted to be patentable over the combination of Jain, Goede, and Yamamoto.

Claims 2-10, 12-25, 51-55, 55-61, 65-69 and 77 are also submitted to be patentable over Jain in view of Goede and further in view of Yamamoto for at least the reasons stated above with respect to Claim 1. Moreover, there may be additional reasons that Claims 1-10, 12-25, 51-55, 55-61, 65-69 and 77 are patentable over Jain in view of Goede and further in view of Yamamoto. For example, regarding Claim 18 specifically, the Office Action asserts on Page 126 that

""DICOM is a type of DOM, and Jain discloses such at/on Fig. 6 #644." Applicant disagrees with this assertion. As best understood the term "DOM" as used by Jain is an acronym for the term "Domain". Moreover, Jain fails to describe a single instance wherein the term "DOM" is used to support the assertion in the Office Action.

In this statement, "DICOM is a type of DOM", the Examiner appears to be taking Official Notice regarding the use of the term "DOM". If the Examiner is taking Official Notice, for example, of facts in the Examiner's personal knowledge rather than the prior art, Applicants respectfully traverse the Examiner's assertions. Under MPEP § 2144.03, the Examiner is now obligated to cite references or other documentary evidence in support of the Examiner's assertions. Alternatively, if the Examiner's assertions are based on facts within the personal knowledge of the Examiner, the facts must be supported by an affidavit from the Examiner.

The rejection of Claims 26, 27, 56, and 70-74 as being unpatentable over Jain in view of Yamamoto is respectfully traversed.

Regarding Claim 26, Claim 26 recites in part an "apparatus operable to fill hash tables representing <u>DICOM elements</u> of high-level language source code." As discussed above, Jain does not describe a medical imaging system, nor does Jain describe "DICOM elements". As discussed above,

To support this rejection, the Office Action asserts on Page 52 that Jain describes these elements in Figure 6, item #636. Applicant disagrees. Jain is not directed to a medical imaging system. Nor does Jain describe or suggest using DICOM. Moreover, nothing in Jain in Figure 6 supports the assertion that Jain uses DICOM elements. In contrast, Jain describes "[i]n step 636, XML_to_Java translation tool 108 generates constructors of sections 424A and 428A." Additionally, as discussed above, the Office Action asserts on Page 126 that ""DICOM is a type of DOM, and Jain discloses such at/on Fig. 6 #644." Applicant disagrees with this assertion. As best understood the term "DOM" as used by Jain is an acronym for the term "Domain". Jain fails to describe a single instance wherein the term "DOM" is used to support the assertion in the

Office Action. Moreover, Yamamoto does not make up for this deficiency. Yamamoto does not describe medical images nor does Yamamoto describe DICOM images specifically. For at least the reasons cited above, Claim 26 is patentable over the cited art.

Moreover, the combination of Jain and Yamamoto do not describe or suggest a non-procedural image annotation template.

With regards to Jain, Jain describes "translating an XML document to an object in an object-oriented language so that content of the XML document can be programmatically accessed." As discussed above, Jain does NOT describe "a non-procedural image annotation template, the translator being operable to translate the non-procedural image annotation template to image annotation source code; and a compiler operably coupled to the translator, the compiler being operable to receive the image annotation source code and to compile the source code into an image annotation executable."

To support this rejection the Office Action asserts that Jain describes "a Document Type Definition file (DTD) associated with an XML document defines how mark up tags within the document should be interpreted by the application presenting the document." As best understood by the Applicant, the Office Action asserts that the DTD file described by Jain is the same as the non-procedural image annotation template recited in the pending claims. Applicant disagrees.

As described by Jain, "[a] Document Type Definition file ("DTD") associated with an XML document defines how the mark up tags within the document should be interpreted by the application presenting the document." (Paragraph 3) As known in the art, a "mark up tag" is a fundamental characteristic of HTML. More specifically, a mark up tag is a command placed between wickets or angle brackets in the mark up language. Mark up tags are not revealed by a WEB browser but are invisible. As such, the HTML mark up tags described by Jain are NOT annotations, nor is there any reasonable rationale for using the known mark up tags as annotations on an image since markup tags are not shown on the WEB page. Finally, Jain does not describe or suggest that "a translator that is operable to receive a non-procedural image

31

annotation template to enable text to be embedded on a medical image." Nor does Jain describe or suggest " a compiler operably coupled to the translator, the compiler being operable to receive the image annotation source code and to compile the source code into an image annotation executable adapted to be installed on a medical imaging system to enable the medical image including the embedded text to be viewed." Moreover, Yamamoto does not make up for the deficiencies of Jain. Therefore, Applicant submits that Claims 26, 27, 56, and 70-74 are patentable over Jain in view of Yamamoto.

The rejection of Claims 28-35, 37, 38, 40-45, 48-50, 57, 58, and 76 as being unpatentable over Yamamoto in view of Goede is respectfully traversed.

Yamamoto describes a method for attaching annotations to a source program. For example, Yamamoto describes when a source program is displayed, "a list of annotations attached to the displayed source program is displayed, so that the user, if he designates a specific annotation in the list, can view the specific annotation." (Paragraph 145). As described by Yamamoto, an annotation is note that is utilized to "administer private, transitory, and small-scale information" (Paragraph 6). Clearly, Yamamoto is describing a method that enables one programmer to attach a temporary note in the source code during the development of the source code that may be viewed by other programmers also working to write the source code. After, the annotation is addressed or acted upon by the programmed, the transitory annotation is then deleted from the source code.

Yamamoto further describes that "an object of the present invention is to provide a method for causing a server to provide a plurality of client computers with annotation functions, thereby to allow users of the client computers to communicate with each other using annotations." (Paragraph 24). To achieve this object, Yamamoto describes that "[t]he user who attempts to attach an annotation to a document, prior to the attaching action, selects an "attach" portion in a plurality of menu options displayed in the menu frame. In response, an attach form that allows the user to attach annotations to a displayed document is displayed in the subframe.

The user, thereafter, clicks at an object that the user wishes to annotate on the source program displayed in the source-view frame, whereby a target object is determined. The user further enters the content of an annotation that the user wishes to attach, into the attach form, and subsequently, the content of the form is transmitted from the client computer 50 to the server 10." (Paragraph 146)

However, Yamamoto does NOT describe or suggest that the system includes a template repository, as recited in Claim 28, that stores non-procedural image annotation templates. Nor does Yamamoto describe that a template may be selected from the template repository. In contrast, Yamamoto describes a single attach form for annotating the source program. The select the single attach form, the user selects the "attach" option from the menu. The attach option then displays the single document that is used by the operator to attach an annotation to the source code.

Moreover, Applicant respectfully submits that Yamamoto does not describe "non-procedural image annotation templates each adapted to enable text to be embedded on a medical image. In contrast, as discussed above, the annotations described by Yamamoto are transitory. That is the annotations are temporary devices used by the programmers to write the source code. After the annotations are viewed or acted upon by the programmer, the annotations are deleted from the source code. Additionally, Goede does not make up for the deficiencies of Yamamoto.

For at least the reasons cited above, Claims 28-35, 37, 38, 40-45, 48-50, 57, 58, and 76 are considered to be patentable over Yamamoto in view of Goede.

The rejection of Claims 36 and 39 as being unpatentable over Yamamoto in view of Goede and further in view of Jain is respectfully traversed. As stated in the Office Action, neither Yamamoto nor Goede teach an "'image annotation executable further comprises an image annotation executable that is compiled from a non-procedural image annotation template." Jain does not make up for this deficiency. Moreover, Claims 36 and 39 depend from Claim 34 which is considered to be allowable for the reasons stated above.

The rejection of Claims 46 and 47 as being unpatentable over Yamamoto in view of Jain is respectfully traversed. Claims 46 and 47 depend from Claim 45 which is considered to be allowable for the reasons stated above.

The rejection of Claim 63 as being unpatentable over Goede in view of Yamamoto is respectfully traversed. Claim 63 depends from Claim 62 which is considered to be allowable for the reasons stated above.

In view of the foregoing comments, it is respectfully submitted that the prior art fails to teach or suggest the claimed invention. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,

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